

Application No. 10/010,709
Amendment Dated 03/15/2005
Reply to Office Communication of 11/15/2004

In the Drawings:

The attached sheets of drawings include changes to Figure 3. In Figure 3 the x-axis is corrected to read $\mu\text{g/ml}$.

Attachment: Original Figures 1, 2, and 4

Amended Figure 3 Annotated to Show Changes

Detailed Action

The Office Action of November 15, 2004, states: "The reply filed on 9/17/04 is not fully responsive to the prior Office Action because of the following omission(s) or matter(s): The amendments to the claims do not follow the Amendment Practice of 37 CFR 1.173 (b). Specifically, There is no separate page indicating the status of claims and support for claim changes (see 37 CFR 1.173 (c)). For any claim changed by the amendment paper, a parenthetical expression 'amended', 'twice amended', etc., should follow the claim number (see 37 CFR 1.173 (b)(2)). The matter to be omitted in a reissue must be enclosed in brackets (see 37 CFR 1.173 (d)(1))."

The claims have been amended to conform to the requirements of 37 CFR 1.173 (b). A separate page indicating the status of claims and support for claim changes is attached to this paper. It is believed the reply is now fully responsive to the Office Actions of November 15, 2004 and March 16, 2004.

Statement of Status and Support under 37 CFR 1.173(c)

Claims 1-21 are pending in the Office Action. Claims 2-6, 8, 9, 11-15, and 17-21 have been amended. Support for the amendments reside in the claims as originally filed and throughout the specification as cited in the present paper. No new matter has been added by way of amendment. Amendments are responsive to the Office Action of March, 16, 2004.

The specification has been amended to update the "Cross Reference to Related Applications".

Reexamination and reconsideration of the claims are respectfully requested.

Detailed Action

The Office Action states: "The amendments filed 5 November 2001 are objected to under 35 USC §132 because it introduces new matter into the disclosure.... Applicant is required to cancel the new matter in reply to this Office Action."

Applicant requests cancellation of the new matter cited by the Examiner in the Office Action mailed March 16, 2004.

The Office Action states: "The amendment to the figures filed 5 November 2001 does not comply with 37 CFR 1.173. Amended figures must be identified as "Amended".

Applicant has submitted amended figures identified as "Amended". It is believed the newly submitted figures comply with 37 CFR 1.173.

The Office Action states: "All references and patents cited on the face of patent 5,990,389 must be cited on an information disclosure statement."

Applicants have submitted an information disclosure statement concurrent with this reply. No new references have been added. It is noted that the MPEP states: "... the Office imposes no responsibility on a reissue applicant to resubmit, in

a reissue application, all the "References Cited" in the patent for which reissue is sought." (MPEP sec. 1406, paragraph 2.) Thus copies of the references have not been submitted.

Claim Objections

The Office Action states: "Claims 2-3 and 19 start with an improper article, and in line 1, a comma should be inserted before 'wherein'".

Claims 2, 3, and 9 have been amended to correct the improper article and insert commas before "wherein".

The Office Action states: "In claim 4, line 1, there is an improper article before 'protein'".

Claim 4 has been amended to correct the improper article.

The Office Action states: "In claim 8, line 1, there is an improper article before 'expression' and in line 2, the comma after '7' should be deleted".

Claim 8 has been amended to correct the improper article and delete the comma.

The Office Action states: "In claim 9, line 3, there is an improper article before 'bacterial'".

Claim 9 has been amended to correct the improper article.

The Office Action states: "Claims 11-14 are missing an article at the start of the claim.

Claims 11-14 have been amended to recite a proper article at the start of the claim.

The Office Action states: "In claim 17, line 3, 'comprising should be replaced with --, wherein the method comprises-- and in line 4, there is an improper article before 'protein'".

Claim 17 has been amended to incorporate the Examiner's suggestion and the improper article has been corrected.

The Office Action states: "In claim 18, line 2, --the group consisting of-- should be inserted after 'from', in line 7, 'comprising' should be replaced with --, wherein the method comprises-- and in line 9, there is an improper article before 'protein'".

Claim 18 has been amended to incorporate the Examiner's suggestions and the improper article has been corrected.

The Office Action states: "In claims 20-21, line 2, 'comprising' should be replaced with --, wherein the method comprises-- and there is an improper article before 'protein'".

Claims 20-21 have been amended to incorporate the Examiner's suggestion and the improper article has been corrected.

Claim Rejections under 35 USC §112, first paragraph

The Office Action states: "Claims 20-21 are rejected under 35 USC §112, first paragraph, because the specification ... does not reasonably provide enablement for a method of enhancing the lysine content of any plant, plant cell, or seed.... It is suggested that the claims be amended to have an additional step prior to expression of the protein, that of transforming the plant, plant cell, or seed with a nucleic acid that encodes the protein."

Claims 20 and 21 have been amended to incorporate the Examiner's suggestion and now read: "...wherein the method comprises: a) transforming a plant cell by insertion of the expression cassette of claim 6; and b) comprising the step of causing the protein according to claim 1 to be expressed in the cell or seed."

Support for the amendment is found in the specification, column 3, second paragraph. It is believed the amendment obviates the rejection.

Claim Rejections under 35 USC §112, second paragraph

Claims 5-6, and 20-21 are rejected under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicant regards as the invention.

The Office Action states: "Claim 5 lacks antecedent basis for the limitation 'RNA sequence according to claim 4' and claim 6 lacks antecedent basis for the limitation 'DNA sequence according to claim 4' as claim 4 is drawn to a nucleotide sequence, not to an RNA or DNA sequence. It is suggested that the claims be rewritten to replace 'according to claim 4' with --that encodes the protein of claim 1--"

Claims 5 and 6 have been amended to incorporate the Examiner's suggestion. Support for the amendments reside in the claims as originally filed. It is believed the amendments obviate the rejections.

The Office Action states: "Claim 15 is indefinite for claiming maize cell or tissue cultures comprising sorghum, wheat or rice cells; the cells of parent claim 12 include sorghum, wheat and rice cells, as well as maize cells. It is suggested that the claim be amended to be dependent upon claim 11, and that the phrase --, wherein the cells are maize cells-- be inserted before the period".

Claim 15 has been amended to incorporate the Examiner's suggestion. Support for the amendment resides in the claims as originally filed. It is believed the amendments obviate the rejections.

The Office Action states: "Claim 20 is indefinite in its recitation of 'causing a protein ... to be expressed in tissues of the plant' and claim 21 is indefinite in its recitation of 'causing a protein ... to be expressed in a cell or seed'. It is unclear what the practitioner must do to cause the expression in a plant, plant cell, or seed."

Claims 20 and 21 have been amended to include the step of: "... transforming a plant cell by insertion of the expression cassette of claim 6...". Support for the amendment is found in the specification, column 3, second paragraph which reads:

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"More preferably, however, the compounds of this invention are synthesized *in vivo* by bacterial or plant cells which have been transformed by insertion of an expression cassette containing a synthetic gene which when transcribed and translated yields the desired compound".

It is believed one of skill in the art reading the claim and the support found in the specification would readily understand how to cause the protein to be expressed in a plant, plant cell, or seed. It is believed the amendment obviates the rejection.

Conclusion

In view of the above amendments and remarks, Applicants submit that the rejections of the claims under 35 USC §112, first and second paragraphs are overcome. Applicants respectfully submit that this application is now in condition for allowance.

If in the opinion of the Examiner, a telephone conference would expedite the prosecution of the Application, the Examiner is invited to call the undersigned.

Respectfully submitted,



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